Claudia BÃ¼chel

List of Publications by Year
in descending order

94 papers	4,235 citations	117625 34 h-index	118850 62 g-index
96 all docs	96 docs citations	96 times ranked	4091 citing authors

#	Article	IF	Citations
1	Albumin nanoparticles targeted with Apo E enter the CNS by transcytosis and are delivered to neurones. Journal of Controlled Release, 2009, 137, 78-86.	9.9	377
2	The Regulation of Carbon and Nutrient Assimilation in Diatoms is Significantly Different from Green Algae. Protist, 2006, 157, 91-124.	1.5	239
3	Multi-endpoint toxicological assessment of polystyrene nano- and microparticles in different biological models in vitro. Toxicology in Vitro, 2019, 61, 104610.	2.4	172
4	Fucoxanthin-Chlorophyll Proteins in Diatoms:Â 18 and 19 kDa Subunits Assemble into Different Oligomeric Statesâ€. Biochemistry, 2003, 42, 13027-13034.	2.5	159
5	Spectroscopic Characterization of the Excitation Energy Transfer in the Fucoxanthinâ€"Chlorophyll Protein of Diatoms. Photosynthesis Research, 2005, 86, 241-250.	2.9	151
6	Subunit Composition and Pigmentation of Fucoxanthinâˆ'Chlorophyll Proteins in Diatoms:Â Evidence for a Subunit Involved in Diadinoxanthin and Diatoxanthin Bindingâ€. Biochemistry, 2006, 45, 13046-13053.	2.5	131
7	Evolution and function of light harvesting proteins. Journal of Plant Physiology, 2015, 172, 62-75.	3.5	126
8	Three-dimensional Structure of Chlamydomonas reinhardtii and Synechococcus elongatus Photosystem II Complexes Allows for Comparison of Their Oxygen-evolving Complex Organization. Journal of Biological Chemistry, 2000, 275, 27940-27946.	3.4	109
9	Human serum albumin nanoparticles modified with apolipoprotein A-I cross the blood-brain barrier and enter the rodent brain. Journal of Drug Targeting, 2010, 18, 842-848.	4.4	105
10	Biosynthesis of fucoxanthin and diadinoxanthin and function of initial pathway genes in Phaeodactylum tricornutum. Journal of Experimental Botany, 2012, 63, 5607-5612.	4.8	101
11	Carotenoid Structures and Environments in Trimeric and Oligomeric Fucoxanthin Chlorophyll a/c₂Proteins from Resonance Raman Spectroscopy. Journal of Physical Chemistry B, 2009, 113, 12565-12574.	2.6	89
12	Identification of a specific fucoxanthin-chlorophyll protein in the light harvesting complex of photosystem I in the diatom Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 905-912.	1.0	86
13	Pigment organization in fucoxanthin chlorophyll a/c2 proteins (FCP) based on resonance Raman spectroscopy and sequence analysis. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1647-1656.	1.0	86
14	Limitations in the biosynthesis of fucoxanthin as targets for genetic engineering in Phaeodactylum tricornutum. Journal of Applied Phycology, 2016, 28, 123-129.	2.8	84
15	The fluorescence yield of the trimeric fucoxanthinâ€"chlorophyllâ€"protein FCPa in the diatom Cyclotella meneghiniana is dependent on the amount of bound diatoxanthin. Photosynthesis Research, 2008, 95, 229-235.	2.9	83
16	The monomeric photosystem I-complex of the diatom Phaeodactylum tricornutum binds specific fucoxanthin chlorophyll proteins (FCPs) as light-harvesting complexes. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 1428-1435.	1.0	81
17	Identification of several sub-populations in the pool of light harvesting proteins in the pennate diatom Phaeodactylum tricornutum. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 303-310.	1.0	76
18	Changes in yield ofin-vivo fluorescence of chlorophyll a as a tool for selective herbicide monitoring. Journal of Applied Phycology, 1993, 5, 505-516.	2.8	75

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19	Probing the Organization of Photosystem II in Photosynthetic Membranes by Atomic Force Microscopy. Biochemistry, 2008, 47, 431-440.	2.5	71
20	The Charge-Transfer Properties of the S₂ State of Fucoxanthin in Solution and in Fucoxanthin Chlorophyll-a/c₂ Protein (FCP) Based on Stark Spectroscopy and Molecular-Orbital Theory. Journal of Physical Chemistry B, 2008, 112, 11838-11853.	2.6	70
21	Oligomerization and pigmentation dependent excitation energy transfer in fucoxanthinâ€“chlorophyll proteins. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 543-549.	1.0	68
22	Factors determining the fluorescence yield of fucoxanthin-chlorophyll complexes (FCP) involved in non-photochemical quenching in diatoms. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1044-1052.	1.0	68
23	Localisation of the PsbH subunit in photosystem II: a new approach using labelling of his-tags with a Ni2+-NTA gold cluster and single particle analysis. Journal of Molecular Biology, 2001, 312, 371-379.	4.2	66
24	â€œSuper-quenchingâ€•state protects Symbiodinium from thermal stress â€” Implications for coral bleaching. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 840-847.	1.0	63
25	Identification of a triacylglycerol lipase in the diatom Phaeodactylum tricornutum. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 239-248.	2.4	60
26	Mapping energy transfer channels in fucoxanthinâ€“chlorophyll protein complex. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 241-247.	1.0	59
27	Limits to physiological plasticity of the coral Pocillopora verrucosa from the central Red Sea. Coral Reefs, 2014, 33, 1115-1129.	2.2	56
28	Light harvesting complexes in chlorophyll c-containing algae. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148027.	1.0	56
29	A novel cryptochrome in the diatom <i><scp>P</scp>haeodactylumÂtricornutum</i> influences the regulation of lightâ€harvesting protein levels. FEBS Journal, 2014, 281, 2299-2311.	4.7	52
30	Transversal and Lateral Exciton Energy Transfer in Grana Thylakoids of Spinach. Biochemistry, 2004, 43, 14508-14516.	2.5	48
31	Changes in some thylakoid membrane proteins and pigments upon desiccation of the resurrection plant Haberlea rhodopensis. Journal of Plant Physiology, 2009, 166, 1520-1528.	3.5	46
32	Characterization of a trimeric light-harvesting complex in the diatom Phaeodactylum tricornutum built of FcpA and FcpE proteins. Journal of Experimental Botany, 2010, 61, 3079-3087.	4.8	44
33	Disentangling two non-photochemical quenching processes in Cyclotella meneghiniana by spectrally-resolved picosecond fluorescence at 77K. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 899-907.	1.0	41
34	The excitation energy transfer in the trimeric fucoxanthinâ€“chlorophyll protein from Cyclotella meneghiniana analyzed by polarized transient absorption spectroscopy. Chemical Physics, 2010, 373, 104-109.	1.9	40
35	Identification of genes coding for functional zeaxanthin epoxidases in the diatom Phaeodactylum tricornutum. Journal of Plant Physiology, 2016, 192, 64-70.	3.5	36
36	Probing the carotenoid content of intact Cyclotella cells by resonance Raman spectroscopy. Photosynthesis Research, 2014, 119, 273-281.	2.9	35

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37	Properties of photosystem I antenna protein complexes of the diatom Cyclotella meneghiniana. Journal of Experimental Botany, 2012, 63, 3673-3681.	4.8	33
38	Ultrafast Energy Transfer from Chlorophyll <i>c</i>₂ to Chlorophyll <i>a</i> in Fucoxanthinâ€“Chlorophyll Protein Complex. Journal of Physical Chemistry Letters, 2013, 4, 3590-3595.	4.6	33
39	INFLUENCE OF DIFFERENT LIGHT INTENSITIES AND DIFFERENT IRON NUTRITION ON THE PHOTOSYNTHETIC APPARATUS IN THE DIATOM <i>CYCLOTELLA MENEGHINIANA</i> (BACILLARIOPHYCEAE)¹. Journal of Phycology, 2011, 47, 1266-1273.	2.3	32
40	Chlorophyll triplet quenching by fucoxanthin in the fucoxanthinâ€“chlorophyll protein from the diatom Cyclotella meneghiniana. Biochemical and Biophysical Research Communications, 2012, 427, 637-641.	2.1	32
41	Isolation and characterization of a photosystem I-associated antenna (LHC I) and a photosystem Iâ€"core complex from the chlorophyll c-containing alga Pleurochloris meiringensis (Xanthophyceae). Journal of Photochemistry and Photobiology B: Biology, 1993, 20, 87-93.	3.8	31
42	Desiccation of the resurrection plant Haberlea rhodopensis at high temperature. Photosynthesis Research, 2011, 108, 5-13.	2.9	30
43	Coherence and population dynamics of chlorophyll excitations in FCP complex: Two-dimensional spectroscopy study. Journal of Chemical Physics, 2015, 142, 212414.	3.0	30
44	Tripletâ€“triplet energy transfer in fucoxanthin-chlorophyll protein from diatom Cyclotella meneghiniana: Insights into the structure of the complex. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 1226-1234.	1.0	28
45	Involvement of the Lhcx protein Fcp6 of the diatom Cyclotella meneghiniana in the macro-organisation and structural flexibility of thylakoid membranes. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1373-1379.	1.0	28
46	Stark fluorescence spectroscopy reveals two emitting sites in the dissipative state of FCP antennas. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 193-200.	1.0	26
47	The cryptochromeâ€"photolyase protein family in diatoms. Journal of Plant Physiology, 2017, 217, 15-19.	3.5	26
48	How reduced excitonic coupling enhances light harvesting in the main photosynthetic antennae of diatoms. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E11063-E11071.	7.1	26
49	Single cell-inductively coupled plasma-time of flight-mass spectrometry approach for ecotoxicological testing. Algal Research, 2020, 49, 101964.	4.6	26
50	Structure and Functional Heterogeneity of Fucoxanthin-Chlorophyll Proteins in Diatoms. Advances in Photosynthesis and Respiration, 2014, , 21-37.	1.0	24
51	Fucoxanthin-Chlorophyll Protein Complexes of the Centric Diatom <i>Cyclotella Meneghiniana</i> Differ in Lhcx1 and Lhcx6_1 Content. Plant Physiology, 2019, 179, 1779-1795.	4.8	24
52	Isolation of highly active photosystem II core complexes with a His-tagged Cyt b559 subunit from transplastomic tobacco plants. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 1501-1509.	1.0	23
53	A new fluorometric device to measure thein vivochlorophyllafluorescence yield in microalgae and its use as a herbicide monitor. European Journal of Phycology, 1993, 28, 247-252.	2.0	22
54	Effect of gold nanoparticles on adipogenic differentiation of human mesenchymal stem cells. Journal of Nanoparticle Research, 2011, 13, 6789-6803.	1.9	22

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55	Structure and Biosynthesis of Isatropolones, Bioactive Amineâ€Scavenging Fluorescent Natural Products from <i>Streptomyces</i>â€…GÃ¶66. Angewandte Chemie - International Edition, 2017, 56, 4945-4949.	13.8	22
56	The structure of FCPb, a light-harvesting complex in the diatom Cyclotella meneghiniana. Photosynthesis Research, 2018, 135, 203-211.	2.9	22
57	Structural differences in the inner part of Photosystem II between higher plants and cyanobacteria. Photosynthesis Research, 2005, 85, 3-13.	2.9	20
58	Temperature and salinity tolerances of geographically separated Phaeodactylum tricornutum BÃ¶hlin strains: maximum quantum yield of primary photochemistry, pigmentation, proline content and growth. Botanica Marina, 2011, 54, .	1.2	20
59	Isolation of monomeric photosystem II that retains the subunit PsbS. Photosynthesis Research, 2013, 118, 199-207.	2.9	19
60	Development of an automated on-line purification HPLC single cell-ICP-MS approach for fast diatom analysis. Analytica Chimica Acta, 2019, 1077, 87-94.	5.4	19
61	Revealing vibronic coupling in chlorophyll c1 by polarization-controlled 2D electronic spectroscopy. Chemical Physics, 2020, 530, 110643.	1.9	19
62	Specific Lhc Proteins Are Bound to PSI or PSII Supercomplexes in the Diatom <i>Thalassiosira pseudonana</i>. Plant Physiology, 2020, 183, 67-79.	4.8	18
63	Exploring the mechanism(s) of energy dissipation in the light harvesting complex of the photosynthetic algae Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1507-1513.	1.0	17
64	Revealing the architecture of the photosynthetic apparatus in the diatom <i>Thalassiosira pseudonana</i>. Plant Physiology, 2021, 186, 2124-2136.	4.8	17
65	Energy dissipation mechanisms in the FCPb light-harvesting complex of the diatom Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 1151-1160.	1.0	16
66	Isolation of Plant Photosystem II Complexes by Fractional Solubilization. Frontiers in Plant Science, 2015, 6, 1100.	3.6	14
67	The Influence of a Cryptochrome on the Gene Expression Profile in the Diatom Phaeodactylum tricornutum under Blue Light and in Darkness. Plant and Cell Physiology, 2017, 58, 1914-1923.	3.1	14
68	A kaleidoscope of photosynthetic antenna proteins and their emerging roles. Plant Physiology, 2022, 189, 1204-1219.	4.8	14
69	Fucoxanthin-Chlorophyll-Proteins and Non-Photochemical Fluorescence Quenching of Diatoms. Advances in Photosynthesis and Respiration, 2014, , 259-275.	1.0	13
70	Knock-Down of a <i>ligIV</i> Homologue Enables DNA Integration <i>via</i> Homologous Recombination in the Marine Diatom <i>Phaeodactylum tricornutum</i>. ACS Synthetic Biology, 2019, 8, 57-69.	3.8	13
71	Confronting FCP structure with ultrafast spectroscopy data: evidence for structural variations. Physical Chemistry Chemical Physics, 2021, 23, 806-821.	2.8	13
72	The molecular organization of chlorophyll-protein complexes in the Xanthophycean alga Pleurochloris meiringensis. Biochimica Et Biophysica Acta - Bioenergetics, 1988, 934, 220-226.	1.0	12

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73	Production of ketocarotenoids in tobacco alters the photosynthetic efficiency by reducing photosystem II supercomplex and LHCII trimer stability. Photosynthesis Research, 2015, 123, 157-165.	2.9	12
74	How diatoms harvest light. Science, 2019, 365, 447-448.	12.6	11
75	Evolution and function of light-harvesting antenna in oxygenic photosynthesis. Advances in Botanical Research, 2019, , 247-293.	1.1	10
76	Functional proteomics of light-harvesting complex proteins under varying light-conditions in diatoms. Journal of Plant Physiology, 2017, 217, 38-43.	3.5	9
77	Cation-dependent changes in the thylakoid membrane appression of the diatom Thalassiosira pseudonana. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 41-51.	1.0	9
78	Photosynthetic Light Reactions in Diatoms. II. The Dynamic Regulation of the Various Light Reactions. , 2022, , 423-464.		9
79	Pigment Organization Effects on Energy Transfer and <i>Chl a</i> Emission Imaged in the Diatoms <i>C. meneghiniana</i> and <i>P. tricornutum</i> In Vivo: A Confocal Laser Scanning Fluorescence (CLSF) Microscopy and Spectroscopy Study. Journal of Physical Chemistry B, 2013, 117, 11272-11281.	2.6	8
80	A distinctive pathway for triplet-triplet energy transfer photoprotection in fucoxanthin chlorophyll-binding proteins from Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148310.	1.0	8
81	Crystallisation of CP43, a Chlorophyll Binding Protein of Photosystem II: An Electron Microscopy Analysis of Molecular Packing. Journal of Structural Biology, 2000, 131, 181-186.	2.8	7
82	Drought-Responsive Gene Expression in Sun and Shade Plants of Haberlea rhodopensis Under Controlled Environment. Plant Molecular Biology Reporter, 2017, 35, 313-322.	1.8	7
83	Structure-based model of fucoxanthinâ€“chlorophyll protein complex: Calculations of chlorophyll electronic couplings. Journal of Chemical Physics, 2022, 156, .	3.0	7
84	Light-Harvesting Complexes of Diatoms: Fucoxanthin-Chlorophyll Proteins. Advances in Photosynthesis and Respiration, 2020, , 441-457.	1.0	5
85	Heterologous expression of HUP1 glucose transporter enables low-light mediated growth on glucose in Phaeodactylum tricornutum. Algal Research, 2022, 64, 102719.	4.6	5
86	Photoacclimation impacts the molecular features of photosystem supercomplexes in the centric diatom Thalassiosira pseudonana. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148589.	1.0	5
87	Photosynthetic Light Reactions in Diatoms. I. The Lipids and Light-Harvesting Complexes of the Thylakoid Membrane. , 2022, , 397-422.		4
88	Organization of the pigment molecules in the thylakoids and the chlorophyll a/c light-harvesting complex of a xanthophyte alga, Pleurochloris meiringensis. A linear dichroism study. Journal of Photochemistry and Photobiology B: Biology, 1998, 44, 199-204.	3.8	3
89	Electron Crystallography in Photosynthesis Research. Advances in Photosynthesis and Respiration, 2008, , 125-150.	1.0	3
90	The C-terminus of a diatom plant-like cryptochrome influences the FAD redox state and binding of interaction partners. Journal of Experimental Botany, 2022, 73, 1934-1948.	4.8	3

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91	Light Harvesting, Energy Transfer and Photoprotection in the Fucoxanthin-Chlorophyll Proteins of Cyclotella meneghiniana. Springer Series in Chemical Physics, 2009, , 577-579.	0.2	1
92	Investigating The Organization Of Photosystem Ii In Spinach Photosynthetic Membranes By Atomic Force Microscopy. , 2008, , 779-782.		0
93	Coherent effects in the carbonyl containing carotenoid fucoxanthin. , 2010, , .		0
94	Comment on â€œAcidic pH-Induced Modification of Energy Transfer in Diatom Fucoxanthin Chlorophyll <i>a</i>/<i>c</i>-Binding Proteinsâ€ Journal of Physical Chemistry B, 2020, 124, 10585-10587.	2.6	0